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**GENERATING A COURIER SHIPPING LABEL OR THE LIKE, INCLUDING AN  
ORNAMENTAL GRAPHIC DESIGN, AT A NON-COURIER PRINTER**

35 This is a continuation-in-part of, and claims priority from, U.S. Patent Application Ser. No. 09/149,680 filed 09/08/1998, which is incorporated by reference.

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5            **I.        COPYRIGHT NOTICE**

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10            **II.      FIELD OF THE INVENTION**

This invention concerns a digital electrical apparatus, methods, articles of manufacture, and data structures involving the same, applied to the field of shipment and product production and transportation. More particularly, this invention relates to a digital computer control system located at an ordering center for shipping product from a remotely located distribution center. Even more particularly, the computer control system handles orders received from various consumer ordering system and coordinates with financial institution and courier computer systems to carry out the delivery of product preferably manufactured at a distribution center. Efficient communications are effectuated over a communications system utilizing an open end network gateway, TCP/IP lines, and local servers.

20            Still more particularly the present invention is directed toward graphic ornamentation of a courier label, packing list, or the like that is computer-generated preferably at a shipper's location (such as a distribution center), e.g., by using shipping label data assigned by/from a carrier computer.

25            **III.     BACKGROUND OF THE INVENTION**

In order to teach a preferred embodiment of the present invention by way of an example, the following disclosure is directed to the sale of flowers, though the same can be said about many other such areas of commerce.

30            Have you recently tried to order a dozen roses? It is expensive. As of today, FTD is charging a total cost of about \$65. Why is the cost so high? Generally, there are lots of players in the production and distribution chain.

Consider the following. A grower produces the flowers at a location that could be almost anywhere in the country. (Foreign production has added importation problems.) A transportation company moves harvested flowers from the grower to a wholesaler's warehouse, usually in a refrigerated truck. The wholesaler usually amalgamates flowers from several growers to build a warehouse inventory to supply orders. Private trucking companies or couriers are used to ship the flowers from the wholesaler's warehouse to retail flower shops, which also could be almost anywhere in a particular country. Superimposed on this retail chain is a series of order clearinghouses, such as FTD, Interflora, 1-800-flowers, or the like. These companies route consumer's orders to local florists to carry out a local delivery--usually by an employee of the local flower shop. Often a greeting card, ribbons, candy, etc. produced by respective manufacturers is (are) conveyed along with the flowers. The clearinghouse (or referring floral store) handles the bill for the flower sale, and the money is distributed to others, one way or another, in the distribution chain. However, even to a charge card company like American Express can take a cut from the sale.

Here is an approximate cost breakdown: the people who receive the orders--either the referring local flower shop or the clearinghouse -- receives about 20% of the sale price: 10% goes to the grower, 10% goes to shipping, 5% goes to miscellaneous e.g, American Express) and 55% goes to the retail florist that actually delivered the product. It is no wonder that the price for a dozen roses from FTD is about \$65. The approach of the prior art is many things, but it certainly is not an efficient system.

The primary problem with this approach is that the product that is being delivered must pass through many intermediaries, each of which takes a profit and has a cost for overhead for some period of time. Additionally, the flowers are usually 3-6 days old by the time they are delivered to the consumer--a serious problem because most of the transportation is not refrigerated and the goods are highly perishable.

In sum, prior to the present invention, there existed a labor-intensive system with many intermediaries for delivering old flowers and other such products to consumers.

#### IV. SUMMARY OF THE INVENTION

It is an object of the present invention to provide an apparatus, method, and article of manufacture involving a digital electrical computer apparatus located at an order center for shipping a product from a remotely located distribution center by steps including:

assigning shipping information signals to the consumer order; linking, by digital communication, the signals a packing list with the shipping information signals; printing the packing list and the shipping information signals at a printer at a distribution center; and shipping the product, along with the shipping label, from the distribution center.

5 It is another object of the present invention to provide an apparatus, method, and article of manufacture involving computer-implemented conveyance of a consumer-composed element, such as a greeting card, from the ordering center to the distribution center for printing and shipment along with the shipping label, at the printing device at the distribution center.

10 It is another object of the present invention to provide an apparatus, method, and article of manufacture involving distribution from the location where the product was produced, e.g., the grower shipping flowers directly to the consumer.

15 It is another object of the present invention to provide an apparatus, method, and article of manufacture involving use of a sheet for the printing at the local distribution center, the sheet having demarcations, preferably perforations, such that the packing list, shipping label, and greeting card (even with preprinted artwork and the consumer customizable message, words, a graphical element, etc.) can be conveniently separated.

20 It is yet another object of the present invention to provide an apparatus, method, and article of manufacture involving dynamically assigning the shipping and other information signals through a TCP/IP connection, and preferably via an open end or front end network gateway

25 It is yet another object of the present invention to provide an apparatus, method, and article of manufacture involving efficient communications with a fax modem in a local calling area of the distribution center and/or a remote fax server for a subsequent transmitting over the communications system to a fax machine as the printing device at the distribution center.

30 It is yet another object of the present invention to provide an apparatus, method, and article of manufacture involving translating at the ordering apparatus to produce the signals representing the packing list, the shipping list, and the consumer customizable element in one digital format.

It is yet another object of the present invention to provide an apparatus,

method, and article of manufacture involving associating an order code signals with each said consumer order at the ordering apparatus, obtaining shipping status information signals from the digital electrical computer shipping system, and combining these signals at a machine-readable site having an address for access by a consumer's digital electrical computer--and preferably providing notice of the address by printing it on such locations as the packaging for the product.

It is a further object of the present invention to provide an apparatus, method, and article of manufacture involving an order center capable of receiving orders from a consumer computer and/or a telephone.

These and other objects evident in contrasting the prior art with the present invention are addressed by providing a revolutionary distribution technology that enables centralized control of remote shipping--preferably from the site of the grower or analogous product producer. The system is faster and less expensive because there are fewer intermediaries and significant digital operations. The result is a faster and more efficient system.

This example of the invention has a communications system that can include a telephone system, and preferably an open or front end network gateway system such as the Internet and TCP/IP communications, and more preferably local fax servers. The communications system is used by a consumer ordering system, such as a computer or a telephone, to communicate an order to an order center computer system. The order center computer system communicates over the communications systems with computer systems of a courier and a financial institution, as well as to a printer device at a remotely located distribution center. The printer device can be as simple as a fax machine, preferably loaded with special paper easily dividable into portions including a packing list, a shipping label, and a consumer composed element, such as a message, graphical element, or the like.

By utilizing this system, the ordering center can receive the order, obtain information for generating a shipping label, and trigger a courier vehicle to go to the distribution center to pick up a shipment. The shipping label, packing list, and consumer-composed communication are translated into the same digital format and efficiently conveyed to the distribution center printing device. Printing at the device signals those at the distribution center (e.g., flower grower) to package flowers according to the packaging label,

package them with suitable packaging in a box with the consumer-composed greeting card message, and attach the shipping label to the box. (Preferably, the product is produced in response to a consumer order, thereby minimizing waste and storage.) The courier picks up the box and delivers it the next morning to the consumer.

5 The result is a faster delivery (next day rather than 3-6 days), resulting in fresher product and less inventory. Another result is fewer intermediaries, so the cost of production and delivery is reduced. The consumer-composed message permits delivery of something individually customized and fulfilled just for the recipient. If there is any concern about the delivery, a consumer can use a computer / telephone accessible status location (e.g., Internet address) to immediately determine the status of an order. Billing is efficiently 10 handled because a pick-up by the courier is communicated to the courier shipping system, and in turn to the order center system, resulting in automatic billing to the financial institution computer system.

15 It is, therefore, respectfully submitted that the present invention provides an improvement over the prior art that brought the public a dozen roses for \$65 for much less.

#### **V. BRIEF DESCRIPTION OF THE DRAWINGS**

Figure 1 is an illustration of elements of the present invention.

Figure 2 is an illustration of a sheet structured and configured for printing in accordance with the present invention.

20 Figure 3 is a logic flow diagram example.

Figure 4 is a task flow diagram for purchasing flowers.

Figure 5 is a site overview diagram.

Figure 6 is a physical overview diagram.

Figure 7 is a navigation overview.

25 Figure 8 is a general frameset overview diagram.

Figure 9 is a detailed frameset overview diagram.

Figure 10 is a home page illustration.

Figure 11 is a shopping logic flow diagram.

Figure 12 is an ordering process logic flow diagram.

30 Figure 13 is a shop by occasion screen.

Figure 14 is an arrangement detail screen.

Figure 15 is a customer identify screen.

Figure 16 is a customer identify error screen.

Figure 17 is a select recipient screen.

Figure 18 is a recipient information screen.

5 Figure 19 is a billing information screen.

Figure 20 is an order summary screen.

Figure 21 is a logic flow chart.

Figure 22 is an order confirmed screen.

Figure 23 is an about proflowers.com screen.

10 Figure 24 is a flower care screen.

Figure 25 is a flower guide screen.

Figure 26 is a logic flow diagram.

Figure 27 is a view order (identify order) screen.

Figure 28 is a view order (order summary) screen.

15 Figure 29 is a cancel order review screen.

Figure 30 is a cancel order confirmed screen.

Figure 31 is a modify billing screen.

Figure 32 is a modify billing information screen.

Figure 33 is a modify billing (confirmed) screen.

20 Figure 34 is a contact proflowers.com screen.

Figure 35 is a contact confirmed screen.

Figure 36 is a reminder service screen.

Figure 37 is a reminder service (modify) screen.

Figure 38 is a reminders confirmed screen.

25 Figure 39 is a contest entry screen.

Figure 40 is a contest entry confirmed screen.

Figure 41 is a customer affiliates information screen.

Figure 42 is an illustration of a representative courier shipping label including an ornamental graphic design.

30 Figure 43 is an illustration of representative printing, including for a greeting card, for a packing list, and for a courier shipping label including respective ornamental

graphic designs.

## **VI. DETAILED DESCRIPTION OF THE DRAWINGS**

Turning now to Figure 1, an overview of the invention is illustrated using flower production and delivery as a general example of a production and shipping System 1 suitable for many other such products.

Operation of the invention begins with the consumer calling in from anywhere on the world or otherwise placing an order generally characterized in Figure 1 as Consumer Ordering Systems 2. Consumer Ordering Systems 2 is represented with two components: Component 2A and 2B. Component 2A shows a Computer 4 that includes a Microprocessor 6 controlled by a Computer Program 10. The Computer 4 is also connected to a Keyboard 8 and Monitor 9 to allow entry of data and information into the computer to convert the data and information into electrical signals per subsequent communications. Of course, an equivalent approach would be to use a dumb terminal or other input device to an open end network gateway (e.g., TV via cable).

Alternatively, Consumer Ordering Systems 2 can be carried with a Telephone 11 as shown in Component 2B. In either case of 2A or 2B a consumer can place an Order 12 by connecting either the Computer System of 2A or the Telephone 11 of 2B to a Communications System 14, including for example a telephone network. The Communications System 14 also preferably includes a Front End or Open End Network Gateway 16 (or a plurality thereof), for example, the Internet. Accordingly, a consumer Order 12 is received by the Communication System 14 and perhaps the Open End Network Gateway 16 for further communication, for example, to an Order Center System 26.

Order Center System 26 receives a communication preferably by a TCP/IP 18 Communication, which is a preferred embodiment. At the Order Center System 26 there is shown a Computer 22 that also has a respective Processor 24 controlled by a Computer Program 26. The Computer 22 is electrically connected to Keyboard 28 and to Monitor 23 so that at Order Center System 26 information can be entered at the Keyboard 28 and converted into electrical signals for processing and transforming in the Computer 22 and displayed on the Monitor 23. Communications can come from the Communication System 14 to the Order Center System 26 or communications can go from the Order Center System

26 to the Communication System 14.

Also shown in Figure 1 is a Financial Institution System 33. Financial Institution System 33 includes its respective Computer 32 which has a Processor 36 controlled by a Computer Program 34. It respectively is connected to its own Keyboard 38 and Monitor 39 to form a system having analogous components to those described of the Order Center System 26. Mastercard and American Express computer operations are representative of such systems.

Also shown in Figure 1 is a Computer Shipping System 41 which includes its respective Computer 40 having its respective Microprocessor 44 controlled by its respective Computer Program 42 and the Computer 40 is electrically connected to Keyboard 46 and Monitor 47. In like manner to that which has been discussed above, information can be entered at the Keyboard 46 for being converted into electrical signals for processing by the Computer 40 and for display on the Monitor 47. Federal Express and UPS computer operations are representative of such systems.

Order Center System 26 and Financial Institution System 33 and Courier Shipping System 44 each can communicate and be linked individually or collectively to Communication System 14, preferably by a TCP/IP 18 connection.

The Order Center System 26 assigns the Consumer Order 12 intelligently to the correct Distribution Center System 51--preferably there are multiple Distribution Center Systems 51 and an incoming Consumer Order 12 is assigned by the Order Center System 26 to the appropriate Distribution Center System 51 by using such factors as price, inventory, product quality, geographical location, and indeed any other factors that may be desirable. The Order Center System 26 "knows" this information because it is received, preferably by computer communication from a digital electrical computer system (not shown in Figure 1) at the respective Distribution Center Systems 51. This information is organized into a database of Distribution Center Systems 51.

Also shown in Figure 1 is a Fax Server 20 which additionally which additionally is preferably a TCP/IP 18 connection between Communication System 14 and Fax Server 20.

Fax Server 20 communicates to a Distribution Center System 51 which is the location for producing a product to be shipped as represented in Figure 1 by Flowers 48. Also shown in Distribution Center System 51 is a Printing Device 50, for example a fax machine, and shown

in Figure 1 being produced by the Fax machine in response to a communication from the Fax Server 20 is Sheet 52 which has three components: 54, 56, and 58, each divided by perforated lines shown as 57. The components 54, 56, and 58 include a Packing List 58, a Customizable Component 56 and a Shipping Sheet or label, for example a Federal Express label, 54.

The product is preferably produced at the Distribution Center System 51, for example, Flowers 48 are grown at the Distribution Center System 51. In response to an order printed on Sheet 52, the Flowers 48 are harvested and located inside a Box 60 with packaging 64 including a coolant and insulation and such other packaging as may be suitable for the product. The Sheet 52 is separated at Perforations 57, and preferably a consumer customizable message 56 (such as a personal message or graphical image) is located within the Box 60 with the Packaging 64 and the Product 48. The Shipping Label 54 is located on the outside of the Box 60, and the Packing List 58 is retained by the Distribution Center System 51.

Printed on the exterior of Box 60 is a notice for obtaining order status information, such as an address on the Open End Network Gateway 16, for example, an Internet address (e.g., beginning with HTTP). The address is useful for informing those in the overall process of how to reach a web page provided by the Order Center System 26.

Also shown on Figure 1 is a communications arrow, also preferably a TCP/IP 18 communications link between Communication System 14 and Courier Remote System 67.

This allows the Courier Shipping System 41 to communicate via Communication System 14 to the Courier Remote System 67. Courier Remote System 67 includes a Vehicle 68, for example a Federal Express truck, equipped with scanning equipment. Courier Remote System 67 may also include such other transportation systems as may be necessary, for example an Airplane 70. In carrying out an order a Vehicle 68 would go to the Distribution Center System 51 to pick up a Box 60. It will use the scanning equipment to scan the Order 54 into the Courier Remote System 67 for later communication back to the Courier Shipping System 41. The Courier Remote System 67 then facilitates transportation of the Box 60 from the Distribution Center System 51 to an ultimate recipient in Figure 1., for example as Recipient 72 or Recipient 74 or even the recipient being the location of the Consumer Ordering System 2.

To illustrate how the System 1 is used to implement an order more generally, a Consumer Order 12 is placed via one of the Consumer Ordering Systems 2A or 2B to the Communication System 14 and preferably to the Open End Network Gateway 16 for relay onto the TCP/IP 18 connection to the Order Center System 26 for processing as is later discussed herein.

The Order Center System 26 generates a communication via TCP/IP 18 to the Communication System 14 to the Fax Server 20 to the Distribution Center System 51 and more particularly to Printing Device 50 which generates the Sheet 52. Additionally, Order Center System 26 communicates via the Communication System 14 to exchange financial information to carry out the order with Financial Institution System 33. Further, Order Center System 26 communicates via Communication System 14 to the Courier Shipping System 41 to organize and carry out the shipping aspects of System 1, which includes the Truck 68 picking up the Box 60 and transporting Box 60 to a Recipient, for example 72.

Turing now to Figure 2, a representative Sheet 52 is provided to illustrate the three components: 54, 56, and 58, each divided by perforated lines shown as 57. The components 54, 56, and 58 include a Packing List 58, a Customizable Component 56, and a Shipping Sheet, for example a Federal Express label, 54.

Note that a Shipping Sheet 54 or label is being utilized here in an expansive sense, not be limited to a printed label with an adhesive back, but also including a sheet of the sort used in a plastic window, as conventionally represented by the approach of Federal Express. Also encompassed by present invention is the use of a sheet, label, or printing on the packaging or box to uniquely identify the package, and the computer(s) recognize the package and electronically associate shipping instructions with the package, sheet, label, etc.

To summarize, the invention can be considered a method of making (and product produced and shipped thereby), a method of using, an apparatus, and resulting data structures, or even a combination of machines and a product article of manufacture for use in the method. Representatively, the invention can be viewed as a broad method for using a digital electrical computer apparatus located at an order center for shipping a product from a remotely located distribution center, the method including the steps of: producing output electrical signals representing a packing list for a consumer order of a product by causing an ordering apparatus located at an order center to change input digital electrical

signals into the output digital electrical signals, the ordering apparatus including a digital electrical computer having a processor, the processor electrically connected to a memory device for storing and retrieving machine-readable signals in the memory device, to an input device for receiving input data and converting the input data into the input electrical signals, and to an output device for receiving the output electrical signals, and wherein the processor is controlled by a computer program to implement the step of producing; 5 assigning shipping information signals to the consumer order with a digital electrical computer shipping apparatus; linking, by digital communication, the signals representing the packing list with the shipping information signals; transmitting signals representing the packing list and the shipping information signals to, and receiving the signals representing the packing list and the shipping information signals at, a printer device at a distribution center located remotely from the order center and from the digital electrical computer shipping apparatus; printing the packing list and a shipping label at the printer device at the distribution center; and shipping the product, along with the shipping label, from the distribution center. 10 15

This broad method can further include the step of: entering more of the input data at the input device to produce more of the output electrical signals including signals representing a consumer-composed element; and wherein the step of linking includes linking, by digital communication, the signals representing the packing list with the signals representing the consumer-composed element; the step of transmitting includes transmitting the signals representing consumer-composed element, along with the shipping information signals, to the printer device at the distribution center; the step of printing includes printing the consumer-composed element, along with the packing list and the shipping label, at the printing device at the distribution center; and the step of shipping is carried out by shipping the consumer-composed element, along with the product and the shipping information, from the distribution center. 20 25

The broad method can also be viewed, as regards the step of generating output electrical signals representing the packing list for the consumer order of a product is carried out by using flowers as the product, such that the step of printing the shipping label and the packing list from the electrical signals is carried out printing the packing list 30 identifying the flowers, and such that the step of shipping is carried out by shipping the

flowers and the shipping information, from the distribution center. Preferably the method is carried out by growing the flowers at the distribution center.

In the broad method, the step of printing can include printing on a sheet in the printer device; and further including the step of: locating demarcations on the sheet in the printer device to detach the packing list from the shipping label. Preferably the demarcations include perforations, such that the step of detaching includes detaching by tearing the sheet at the perforations.

The broad method can also be carried out including the steps of: entering more of the input data at the input device to produce more of the output electrical signals representing a consumer-composed message to a recipient of the flowers; the step of linking includes linking, by digital communication, the signals representing packing list with the signals representing the consumer-composed element; the step of transmitting includes transmitting the signals representing consumer-composed element, along with the shipping information signals, to the printer device at the distribution center; the step of printing includes printing the consumer-composed element, along with the packing list and the shipping label, at the printing device at the distribution center; and the step of shipping is carried out by shipping the consumer-composed element, along with the product and the shipping information, from the distribution center.

Moreover, the step of printing can include printing the message on a greeting card having preprinted artwork. Further, the step of printing can include printing on a sheet in the printer device; and further including the step of locating a sheet in the printer, the sheet including a greeting card having preprinted artwork and demarcations for detaching the greeting card from the packing list and the shipping label; and wherein the step of shipping includes separating the packaging list, the shipping information, and the greeting card by tearing the sheet at the demarcations.

Preferably the method is carried out so that the step of assigning the shipping information signals includes dynamically assigning the shipping information signals through a TCP/IP connection. Also, prior to the step of transmitting, preferably the method includes translating at the ordering apparatus to produce the signals representing the packing list and the shipping list signals in one digital format. With further regard to the method, the steps of transmitting and printing can be carried out with the printing device

being a fax machine; and further including the step of connecting the fax machine to a communications system for the receiving of the signals representing the packing list and the shipping information signals.

Also preferable is to carry out the step of transmitting by including  
5 transmitting via an open end network gateway to a remote fax server for a subsequent transmitting over the communications system to the fax machine. Similarly, it can be suitable to carry out the step of transmitting by including transmitting to a remote fax server with a fax modem in a local calling area of the distribution center for a subsequent transmitting to over the communications system to the fax machine.

10 In a general case, the broad method can further include the steps of: associating an order code signals with each said consumer order at the ordering apparatus; obtaining shipping status information signals from the digital electrical computer shipping system; and combining the order code signals with the status information signals at a machine-readable site having a network gateway address for access by a consumer's  
15 digital electrical computer.

For keeping those involved well-informed, the method can further include the step of printing an network gateway address on publicly distributed notices, such as packaging for the product to facilitate an electronic communication from a consumer's digital electrical computer to the order center. This idea works out well in conjunction with  
20 making the processor electrically connected to the input device by electrically connecting the input device to a consumer computer, and electrically connecting the consumer computer to an network gateway, and electrically connecting the network gateway to the processor.

25 Still, traditional technology must be accommodated. Thus, the method can be carried out by providing telephones at the order center for receiving acoustic ordering information for use as the input data.

Over all, it is preferable to carry out any of the foregoing views of the invention by producing the product at the distribution center. This adds to the efficiency from utilizing the step of printing that includes printing on a sheet in the printer device; and  
30 further including the step of locating demarcations on a sheet in the printer device to detach the packing list and the shipping label--preferably also with the demarcations

including perforations to detach the packing list from the shipping label. Even more preferably is to carry out the method by further including the steps of: entering more of the input data at the input device to produce more of the output electrical signals representing a customizable--preferably consumer-composed--message to a recipient of the product; 5 the step of linking includes linking, by digital communication, the signals representing packing list with the signals representing the consumer-composed element; the step of transmitting includes transmitting the signals representing consumer-composed element, along with the shipping information signals, to the printer device at the distribution center; the step of printing includes printing the consumer-composed element, along with the 10 packing list and the shipping label, at the printing device at the distribution center; and the step of shipping is carried out by shipping the consumer-composed element, along with the product and the shipping information, from the distribution center. In this way, the step of printing can include printing the message on a greeting card. Better still is to have the step of printing carried out by locating a sheet in the printer, the sheet including a greeting card 15 for the message and having preprinted artwork and demarcations for detaching the greeting card from the packing list and the shipping label; and wherein the step of shipping includes separating the packaging list, the shipping information, and the greeting card by tearing the sheet at the demarcations. More ideally is to have the step of printing include printing a graphical element as part of the consumer-composed message. This can be 20 accomplished by further including the step of: prior to the step of transmitting, translating at the ordering apparatus to produce the signals representing the packing list and the shipping list signals in one digital format.

Speed is improved by carrying out the method wherein the step of assigning the shipping information signals includes dynamically assigning the shipping information 25 signals through a TCP/IP connection. Cost is also reduced by carrying out the method, wherein the steps of transmitting and printing are carried out with the printing device being a fax machine; and further including the step of connecting the fax machine to a communications system for the receiving of the signals representing the packing list and the shipping information signals. This may involve having the step of transmitting include 30 transmitting via a network gateway to a remote fax server for a subsequent transmitting over the communications system to the fax machine. Another approach is having the step

of transmitting include transmitting to a remote fax server with a fax modem in a local calling area of the distribution center for a subsequent transmitting to over the communications system to the fax machine.

To put status information in the hands of consumers, the method can be carried out by associating an order code signals with each said consumer order at the ordering apparatus; obtaining shipping status information signals from the digital electrical computer shipping system; and combining the order code signals with the status information signals at a machine-readable site having a gateway address for access by a consumer's digital electrical computer. Again, information can be distributed or publicized by printing a network gateway address on packaging for the product to facilitate an electronic communication from a consumer's digital electrical computer to the order center.

Thus, orders can be placed so that (1) the step of producing includes:

making the processor electrically connected to the input device by electrically connecting the input device to a consumer computer, and electrically connecting the consumer computer to a network gateway, and electrically connecting the network gateway to the processor; and/or (2) by providing telephones at the order center for receiving acoustic ordering information for use as the input data.

Billing aspects of the invention can be viewed as the method further including the steps of: verifying charge card availability to pay for the product by an electrical communication from the digital electrical computer ordering apparatus to a charge card digital electrical computer system prior to shipping the product; and processing the shipping information to trigger a second electronic communication to the charge card digital electrical computer system charging the payment to the charge card subsequent to the shipping the product.

As to shipping, the method can be carried out so that the step of communicating data representing the shipping information to the digital electrical computer apparatus at the order center includes: scanning the shipping label to obtain scanning data; and transmitting the scanning data to the digital electrical computer apparatus at the order center for processing the shipping information to trigger the charging of the charge card.

The foregoing technical discussion of the invention has referred to a "method" as representative of the apparatus, method of making, product produced by the

method, data structures, articles of manufacture, and necessary intermediates. To illustrate that an apparatus characterization is also valid for teaching how to make and use the invention, consider the invention as including an apparatus comprising: an ordering apparatus located at an order center, the ordering apparatus including a digital electrical computer having a processor, the processor electrically connected to a memory device for storing and retrieving operations including machine-readable signals in the memory device, to an input device for receiving input data and converting the input data into input electrical signals, to an output device for converting output electrical signals into output, the processor controlled by a computer program to the produce circuitry connections in the processor in producing the output electrical signals from the input electrical signals, including generating output signals representing a packing list for a consumer order of a product from the input data entered at the input device; a digital electrical computer shipping system controlled by a program to assign shipping information to the consumer order; a communications system for transmitting the electrical signals representing the packing list and the shipping information signals; a printer device at a distribution center located remotely from the ordering center and from the shipping system for receiving the signals representing the packing list and the shipping information signals, and for printing a packing list and a shipping label from the signals representing the packing list and the shipping information signals; and packaging for the product and the shipping information, combined for shipment from the distribution center.

Viewing the invention as a method for making an apparatus, the method includes the steps of: providing an ordering apparatus located at an order center, the ordering apparatus including a digital electrical computer having a processor, the processor electrically connected to a memory device for storing and retrieving operations including machine-readable signals in the memory device, to an input device for receiving input data and converting the input data into input electrical signals, to an output device for converting output electrical signals into output, the processor controlled by a computer program to the produce circuitry connections in the processor in producing the output electrical signals from the input electrical signals, including generating output signals representing a packing list for a consumer order of a product from the input data entered at the input device; providing a digital electrical computer shipping system controlled by a program to assign

shipping information to the consumer order; linking the ordering apparatus and the shipping system to a communications system for transmitting the electrical signals representing the packing list and the shipping information signals; linking a printer device to the communications system at a distribution center located remotely from the ordering center and from the shipping system for receiving the signals representing the packing list and the shipping information signals, and for printing a packing list and a shipping label from the signals representing the packing list and the shipping information signals; and shipping the product and the shipping information, from the distribution center.

With more particular regard to using the invention, the user screens shown in the figures are self-explanatory.

With more particular regard to making the invention, the following specifications can be utilized, particularly with reference to the figure numbers referenced below.

#### **document conventions**

This document presents the user definitions, the tasks analyses, and descriptions of the design one screen at a time.

The user definition describes particular user types with respect to their tasks and responsibilities.

The task analyses describes the task flow for the various tasks. These analyses include descriptions of the tasks and diagrams illustrating the work flow, independent of the existing technology. These task flows indicate the flow of work and use of work objects.

The screens are presented in the following manner:

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#### **brief overview of function**

A short description of the task the user intends to perform.

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**page design**

A graphical illustration of the page design. Optional or alternative design ideas are typically presented here as well.

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**flow chart of screen**

5 A logic diagram of the task or page including all non-standard behaviors. These flow diagrams typically do not describe alternative design ideas.

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**textual description of the controls**

Text describing each control in the interface. Optional or alternative design ideas are typically discussed here as well.

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**1.0 questions or issues to resolve**

These are questions and issues, which are, as yet, unresolved and may wait until a later date to be addressed.



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## **STANDARDS**

The design utilizes controls and conventions that are supported in all Mozilla/2.0 compliant browsers. Please refer to the Conventions portion of the Interface Design section for a more detailed description.

## TERMINOLOGY

The terminology used in the design is subject to change based on user feedback during the usability testing. However, the terminology used in this design document will likely remain as described.

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## FLOW DIAGRAMS

The logic diagrams follow standard software flow-charting design conventions. The diagram typically flows from top to bottom. Each box has one input and one output, with the exception of decision boxes. These have two outputs.

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See Fig. 3.

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## TEXTUAL DESCRIPTIONS

The textual descriptions of the pages include several possibly unfamiliar conventions that are described below.

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### **bold text**

5      Bold text in the descriptions or overviews refers to a control or page of the same (or very similar) name in the design, description, or flow diagram.

### **Indenting**

This indicates subordinate relationship. For instance controls at this level of indentation belong solely to the feature directly extended from them.

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### **example:**

The following is an example from the documentation. *The following controls belong to this example.*

#### **User Profile THIS INDICATES THE NAME OR REFERENCE OF THE CONTROL.**

15      Button: Displays user profile page.

*Each control is identified as to what kind of control it is.*

### **Quit**

Button: Displays confirmation pop-up dialog.

*These next controls belong solely to the quit feature.*

## Quit Confirmation

Pop-up dialog: Informs the user that they will be logged out of the system.

**Continue**

Button: Logs user out of system and displays login page.

**Cancel**

Button: Displays currently active page.

Default: This is the default control.

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**USER DEFINITION**

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**user profile**

Proflowers.com provides users with a single point of access for viewing, purchasing and delivering flowers. The typical user of this type of service is one who possesses a credit card and is comfortable with the concept of shopping and making purchases on-line. The user of this site will typically be interested in addressing a certain need, such as a special event, holiday or a gift. Since flowers typically have an emotional component inherent to their type or arrangement, the user of this service will require some guidance as to which type of flower or arrangement is appropriate for the occasion. The most common user of

5 this service will typically be male, and have an income that varies widely. The user will presumably be somewhat familiar with the web, but not necessarily an advanced user.

10 Although most users will typically purchase flowers as a gift, some users may wish to order flowers for decoration during holidays or special gathering. In such cases, it is typically a woman who is making this type of purchase.

15 Despite the above mentioned gender stereotypes, it is conceivable that the reverse of these stereotypes is also possible. Web usage is still somewhat disproportionately male, however with the rise of Internet access in the marketplace the need for this distinction is becoming less relevant.

20 Some features of this service, which would be beneficial to the above-mentioned user, include a reminder service for important occasions and holidays, as well as automated delivery and gift registry.



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## **TASK ANALYSIS**

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### **observations**

Since buying flowers is not an uncommon or unusual task, observation of this task is not necessary. The typical task flow of this process involves browsing available inventory or asking for assistance in purchasing an arrangement for a certain occasion, such as 5 Valentine's day, the loss of a loved one, decoration for the arrival of guests, or as an apology. Whether or not the purchase is a gift or for oneself determines how and where the flowers will eventually be delivered. Finally, the means of payment are negotiated.

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### **scenarios**

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10 The following scenarios capture the typical activities and behaviors thought to be representative of the users and tasks within the domain of this web site. These scenarios promote a better understanding of the user's needs through a narrative approach.

## **Bob the Business Manager**

Bob recently started an argument with his wife over a trivial matter, and he's feeling a bit chagrined because he realizes he was being unfair. He loves his wife very much, and he wants to let her know that despite the times they disagree he still cares for her deeply. He is not a particularly adventurous type, and he thinks that the old-standby, flowers, would be the perfect way to show his affection and apology. He is a busy person, and doesn't have time to go shop for flowers, so he gets on-line to see what he finds there. He performs a search of the Internet for "flowers", and comes across a few sites that sell flowers and deliver them. The first few sites he visits seem pricey, or are difficult to navigate since they force him to know what he wants ahead of time. He finally sees the Proflowers site, and he notices that the site is asking him why he's buying flowers. He tells it, and it provides him with a list of flowers appropriate for the occasion. He assumes that his wife has some basic knowledge of flower types whereas he has none, and picking the right arrangement, he thinks, will win him big points for being so considerate. After browsing the selection, he picks the one he thinks his wife will like. He tells the system where to send it, includes a brief and sweet message, and indicates how he wants to pay. After the transaction is complete, he congratulates himself for being such a smooth operator.

While at Proflowers, he notices that he can sign up for a reminder service. Since he forgot his mother's birthday last year and still hasn't heard the end of it, he signs up and asks to be reminded of his wife's birthday, his mother's birthday, and his anniversary.

### **Betty Bereaved**

Betty's coworker and friend recently lost her mother to a debilitating illness. She visits the Blue Mountain site, since she had sent electronic greeting cards to friends before. She notices a banner ad for Proflowers, and given the circumstances she decides it would be a nice gesture if she left some flowers on her friend's desk to enjoy when she returns to work. She goes to the Proflowers site and notices that she can pick from a list of occasions. She selects "bereavement", and browses the available arrangements. Since price is important, she tries to find something that is inexpensive but nice. She likes the fact that she knows she is getting a good deal, which is important. She finally finds a nice subtle but lovely arrangement, and has it shipped to herself at work since she doesn't know her friend's home address. She knows her friend will return next Monday, and she doesn't want the flowers to sit too long. She tells Proflowers to deliver on a specific date, the Friday before she returns. She sees that the flower arrangements include food and are much fresher than most arrangements elsewhere will be, so she's not worried about them sitting in the office over the weekend. She includes a brief message, and pays for the flowers. A short while later, she receives a confirmation of the order in her email box and is satisfied that the flowers are on their way.

### **Gary in the Gulf**

Gary, an Air Force pilot, was sent to the Persian Gulf during a breakdown in diplomatic relations with Iraq. He and his wife are new parents, and he is saddened by the fact that he will be away from his family. He promises her that he'll return in a three months, and not to worry. After three months, tensions have risen and he will have to remain on duty for another three months. He wants to send his wife some flowers to apologize for being away and to tell her that he loves her. He visits a number of flower sites on-line, but they all seem too expensive for what he gets. Since he has a limited income, he appreciates the excellent prices Proflowers offers. Also, as a military man, he appreciates the efficient process of shopping and ordering Proflowers provides. He feels comfortable that his wife will get a nice, fresh arrangement, and she won't ball him out for spending too much money.